BUSINESS MODEL INNOVATION IN CHINA: DIGGING OUT NEW-TO-THE-WORLD FEATURES

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ABSTRACT

There is a widespread perception that Chinese companies are not good at creating novel products and services. But in the arenas of digital businesses, Chinese companies have become highly successful. Thus, we take business model innovation as an entry point to dig out the reasons behind the success. We analyzed 137 suggested innovative business models in detail to investigate new-to-the-world features, yielding an overview of business model innovation in China. Based on these cases, we propose a theoretical framework to show how innovative features can prompt successful BMI. We summarize the lessons to be learned from BMI in China.

INTRODUCTION

The conventional wisdom is that Chinese companies, compared to their western counterparts, have been less successful at original product and service innovations over the last three decades, and much of the success Chinese companies achieved was the result of industrial imitation of established Western multinational corporations (Fu, 2015; Redding & Witt, 2007). Subsequently, Chinese companies were subject to criticism of their growth modes, which were said to heavily depend on foreign technology transfer and imitation, lack of creativity, and lack of indigenous capabilities in core technology (Fu, 2015).

However, the phenomenon itself and people’s perception towards it have become more diverse recently. On one hand, evidence based on patent data over time showed that most of Chinese sectoral innovation performance was not remarkable and only few sectors showed an increasing trend for new-to-the-world progress (Hu & Mathews, 2008; Zhu, Murmann, & Jiang, 2016). Niche innovations in specific Chinese markets were common, while radical or disruptive product innovations were rarely seen emanating from Chinese firms (Yip & McKern, 2016). On the other hand, with a global ambition—and driven by tremendous stimulus from large and
varied domestic needs—China may be entering a new phase, moving aggressively from pure imitation to a global innovation path (Lewin, Kenney, & Murmann, 2016; Yip & McKern, 2016). For instance, China is considered a leader in the digital innovation arena, such as e-commerce and mobile payments (Hsu, Li, Mao, & Zhang, 2018).

Innovation concerns not only novel technological progress but also enhanced business practices, such as business model innovations (BMIs) (Massa & Tucci, 2013). A successful business model can find new ways to create and capture value for different stakeholders, and the role of such a business model can be even more important than advanced technology (Casadesus-Masanell & Zhu, 2013; Chesbrough, 2010).

For these reasons, BMI appears to be a good entry point to explain the trend of Chinese companies’ success. If Chinese firms are—it is claimed—not good at radical product innovation, and instead, they achieve success in the market by using unique business models, it raises the question as to whether these business models exhibit any new-to-the-world features. This question has not been answered in the current literature, but it does have essential implications, as both China and Chinese companies are taking an increasingly important role in the global market. Shedding light on the novelty of Chinese firms can not only help the world better understand Chinese innovation paths but also contribute to the overall field of innovation management.

This paper tracks BMIs in China with new-to-the-world features and builds a theoretical framework to explain the changes from novel features to the architecture of a business model by investigating three questions: (1) How frequently do prominent business models in China exhibit new-to-the-world features? (2) How do innovative features further prompt the success of BMI? (3) What can we learn from BMI in China?

Concerning the first question, we launched a crowdsourcing contest to collect a large number of innovative business models in China, with a uniform template of business model analysis that we designed for it. With the suggested cases, we provide an overall picture of innovation performance of business models in China. Concerning the second question, we propose a theoretical model on how novel features may further facilitate BMI. We describe two typical, successful business models with new-to-the-world features to “validate” the model. And, concerning the third question, we summarize the experiences and lessons learned from BMI in China based on the investigation of the first two questions.

**Research Design**

**The degree of novelty and innovation scope**

BMI requires novel features in one or more components of a firm’s business model and/or the architecture linking these elements. Accordingly, we distinguish the degree of novelty for BMI into three levels: New to the firm, which means some novel changes of a business model that did not exist in the previous business model of this firm; New to China, which requires the novel features of a business model should first appear in the industry in China; New to the world, this calls for novel features of a business model that should also be new in the industry globally, which is one of our main foci in this study. A BMI with a new-to-the-world feature (e.g., Airbnb connecting private hosts to guests) does not necessarily require inventing new products or services, but it must enlarge the existing market, either by attracting new customers into the market or by encouraging existing customers to consume more (Markides,
It can be seen as the process that include modular or architectural changes in the business model to disrupt market conditions (Foss & Saebi, 2017). Note that it is difficult to precisely quantify the degree of innovation of a business model, so we try to investigate the degree of novelty of a feature by judging only its earliest appearance.

**Dataset collected via a crowdsourcing contest**

There is little empirical research on the construction of various innovative business models due to the difficulty of acquiring adequate data. Most prior studies chose one or two cases for the observation of BMI performance. Aiming at filling this gap and providing novel insights into the methodologies and empirical data on BMI, this study adopts a crowdsourcing approach to collect preliminary data (Afuah & Tucci, 2012).

In our study, we needed to identify innovative business models in China. Firms will often advertise their innovative points (even if not showing the commercial details) to the markets and customers to enhance their brand reputation. Thus, many innovative points are known by the public, especially by people pursuing business studies, such as MBA students or students in business-related fields. Compared to picking up just one or two business models to observe how they innovate their business models, finding the most innovative business models based on a crowd's choices is more comprehensive. Thus, the idea for the contest “Finding Innovative Chinese Business Models for the World,” co-organized by three universities [ANONYMIZED for REVIEW], was born.

Considering the crowd with the largest motivation for this crowdsourcing contest and better knowledge about businesses, we focused on promoting the contest in different business schools associated with top universities in China via both digital platforms (e.g., WeChat official account, WeChat groups for classes) and off-line launches.

Figure 1 demonstrates the process of dataset building through the crowdsourcing contest in this study. In each step, we adopted several measures for data quality control.

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**RESULTS**

280 people registered for this contest, including undergraduates, MBA, and PhD students in business-related fields. In the end, 184 participants submitted final entries. Among all the entries, 23 cases were selected by 70 participants (e.g., there were nine participants choosing Pinduoduo and nine choosing Hema Fresh). In the filtering process, we picked the best repeated case based on the quality of case completion. Thus, we considered 137 unique cases from the contest. At the same time, we also removed cases that did not meet the requirements of the contest (e.g., the description was too vague or the case clearly was not innovative), and therefore, we finally ended up with 96 unique cases. These 96 cases are all currently operating, with new features to the firm, to the industry in China, or to the world.

**Industry distribution**
The IT, software, & IT services sectors count for more than 50% of the dataset (54 cases), followed by Wholesale & Retail trade (10 cases), Manufacturing (5 cases), Leasing and business services (5 cases), Scientific research and technical services (5 cases). These cases reveal the phenomenon that quite a large part of successful and innovative business models exist in IT-related arenas. There is an obvious feature “IT service +” among these cases, which span different industries, such as e-commerce, culture and entertainment sectors, knowledge platforms, finance, social media, wholesale / retail trade, and healthcare.

**Characteristics of suggested cases from crowdsourcing**

We carried out a preliminary investigation by using content analysis generated from the description of all selected Chinese cases. Based on the frequency of words appearing in the cases, the visualization of the top 50 words is shown in Figure 2. The results show that “users,” “platform,” “customer,” “service,” and “product” are central words for these BMIs. Through the “word cloud” analysis, we can summarize two key points about the characteristics of successful and innovative business models as follows:

To summarize, we observe that these innovative business models in China successfully develop products and services to cater to the needs of Chinese users, and focus on exploiting and reshaping value propositions for their users. With the digital trajectory in China, the low technological barriers allow large numbers of Chinese companies to occupy the market first and then improve the technology side gradually (Li, 2019).

**Business models with new-to-the-world features**

As discussed above, BMI can simply be new to a firm while not necessarily new to an industry, but in this section, we focus on business models with new-to-the-world features. We summarize four main characteristics from representative cases with new-to-the-world features as follows:

*Birth with Chinese characteristic.* Among the cases with new-to-the-world features, four of them had distinct Chinese characteristics. Take Pinduoduo as an example, which may be considered a representative of the disruptive innovation of e-commerce in China (Christensen, 1997; Christensen, Raynor, & McDonald, 2015). To adapt to Chinese social structure, Pinduoduo targets a “lower” social class market with great potential, derived from the popularity of mobile phones in third-tier and fourth-tier cities. Due to the large low-income market and population in China, Pinduoduo’s form of low-end disruptive innovation is a key to its success, as it could occupy a large customer market at a low customer cost and then compete with other platforms such as Taobao.

*Technology advance push.* Among all the cases, only a few business models showed new-to-the-world features based on their advanced technologies. For instance, DJI provides
consumer and professional drones, handheld devices, and other accessories, and unmanned aerial vehicle (UAV) industry application solutions. It innovatively targets ordinary consumers and industry-level consumers, as traditionally, UAVs were mainly applied in the professional market, and the products were expensive, which made the drones unattractive to the mass market. DJI has been applying its advanced drone technology to more scenarios and industries. At the same time, they also demonstrate novelty in the channels to reach users. They use a multi-channel approach to interact with their customers, and cooperating with institutions to engage students and institutional users to enhance brand recognition.

**Digitalization and information service trajectories.** Most of the novel business models are related to the digitalization and information service trajectories in China, and among them, eight cases especially appeared as the result. For instance, SpringRain Doctor is a medical product integrating AI technology and physician expertise. Users can use their mobile terminals anytime and anywhere to make appointments, to pay fees, to review, check and inspect reports. Through this business model, the medical experience has been significantly improved, and to some extent, the needs of Chinese residents for medical services have been met. Compared to Western medical products, which provide a single information inquiry service, SpringRain Doctor also combines registration, medical treatment, finding matching doctors, and other functions together, providing more user-friendly application services. At the same time, it reduces the cost of medical treatment for patients and effectively allocates medical resources, making a contribution to the healthcare field.

**Novel value propositions for customers.** It is not surprising to find some business models with new-to-the-world features based on novel value propositions for customers. For instance, Cainiao Logistic Network provides logistics aggregation services, which integrate a large group of e-commerce companies, logistics companies, warehousing companies, third-party logistics service providers, and supply chain service providers. It is the first service product in the world to improve logistics efficiency and build foundations of e-commerce by integrating information from multiple companies in different fields.

These business models with new-to-the-world features all have a huge user base, which can be attributed to China's population size. At the same time, most of these leading companies emphasize two important activities, either reshaping customer value propositions or transforming users’ operations for greater customer interaction and collaboration, which provide opportunities for them to create new business models (Berman, 2012).

**DISCUSSION**

Currently, the Chinese economy is experiencing a transformation from low-cost, labor-intensive production to the era of the digital economy. With more and more successful Chinese companies being global leaders in specific arenas, one may wonder whether they have created some new-to-the-world features. In this paper, we designed a crowdsourcing contest to explore the most innovative business models in China to have a better understanding of overall innovation performance, especially on those business models with new-to-the-world features. We proposed that the unique Chinese context, the digital transformation trajectory in China, and extensive competition with quick response to market changes are essential for the emergence of these innovative business models.
After analyzing the cases suggested by the crowd, we proposed a theoretical framework about how a novel feature in a business model can further facilitate the architectural innovation of a business model system. We propose that a novel feature or innovative element is important for a business model, but an architectural innovation for a business model may be even more important for long-run success. We suggested that a business model should exploit its advantages and adjust other elements to complement the advantages of novel features, so that the whole architecture of the business model improves.

Currently China has the scale to drive rapid commercialization of digital business models with strong policy support for digital transformation, and Chinese companies have the advantage of a large home market of consumers who are young and eager to embrace digital. Western counterparts may want to re-examine the status and contribution of Chinese companies (and possibly avoid underestimating Chinese innovation). Finally, the lessons we derived from BMI in China may have potential implications for strategies in several rapidly-changing industries.

REFERENCES ARE AVAILABLE FROM THE AUTHORS